US 62/641 HIGHWAY
&
ASSOCIATED FACILITIES

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HIGHWAY & ASSOCIATED FACILITIES
Unusual Features

Volume 1

- Sacrificial Coating on Existing Substructures
- Seismic Isolation Bearings
- 168” Web (Unit 3)
- Counter-balanced Span & Temporary Hold-down (Unit 3)
- Navigation Issues during Erection
- BellSouth FiberOptic Line on Inspection Walk
- Large Finger Expansion Joints
- Steel Bridge Rail

Volume 2

- 8 MOT Phases
- Temporary Bridge Design/Build

Volume 4

- Powerhouse Access Road Bridge (P/T Outriggers)
- 2 Fishing Piers (Platforms and Box Fabrication)
- Existing Bridges over KY Dam

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RETROFIT OF EXISTING HWY & RR BRIDGES OVER KY DAM

SPILLWAY/INTAKE RETROFIT

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SPILLWAY/INTAKE RETROFIT

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SPILLWAY/INTAKE RETROFIT

Existing Bridges (Spillway)

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SPILLWAY/INTAKE RETROFIT

Existing Bridges (Intake)

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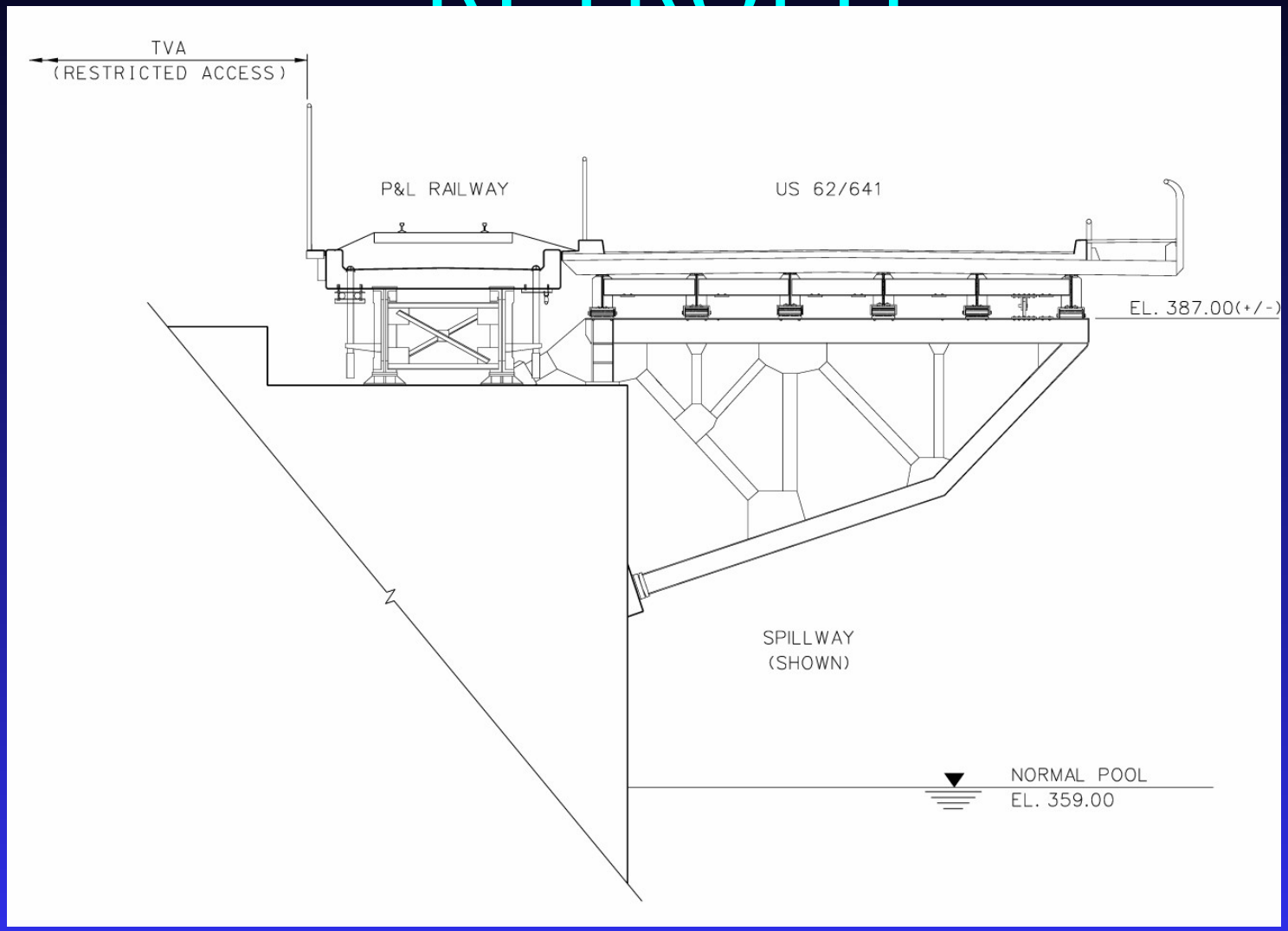
SPILLWAY/INTAKE RETROFIT



Existing Bridges

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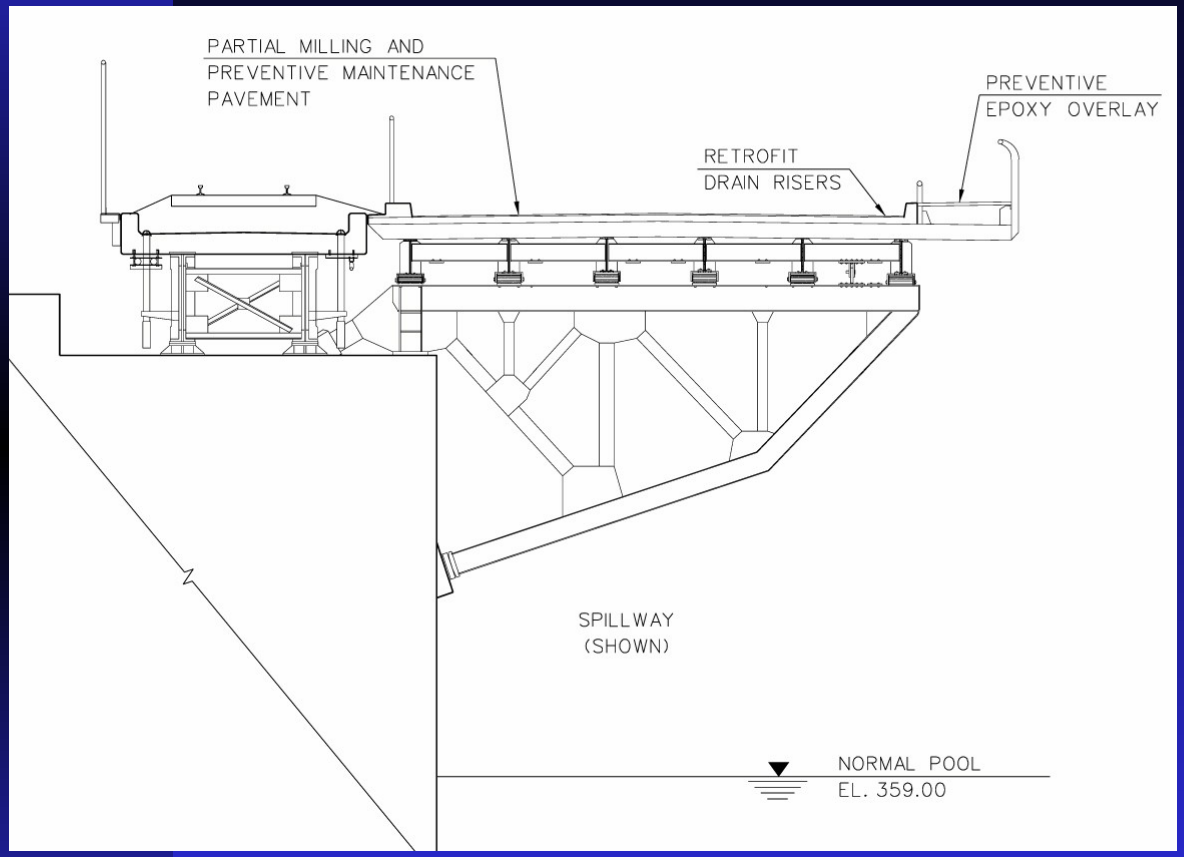
SPILLWAY/INTAKE RETROFIT



<u>Stage 1 Construction</u>: (3 months after NTP)

- Partial Milling
- Preventive Maintenance Pavement
- Drain Retrofit (both gutterlines)
- Preventive Epoxy Overlay

Stage 1 Construction

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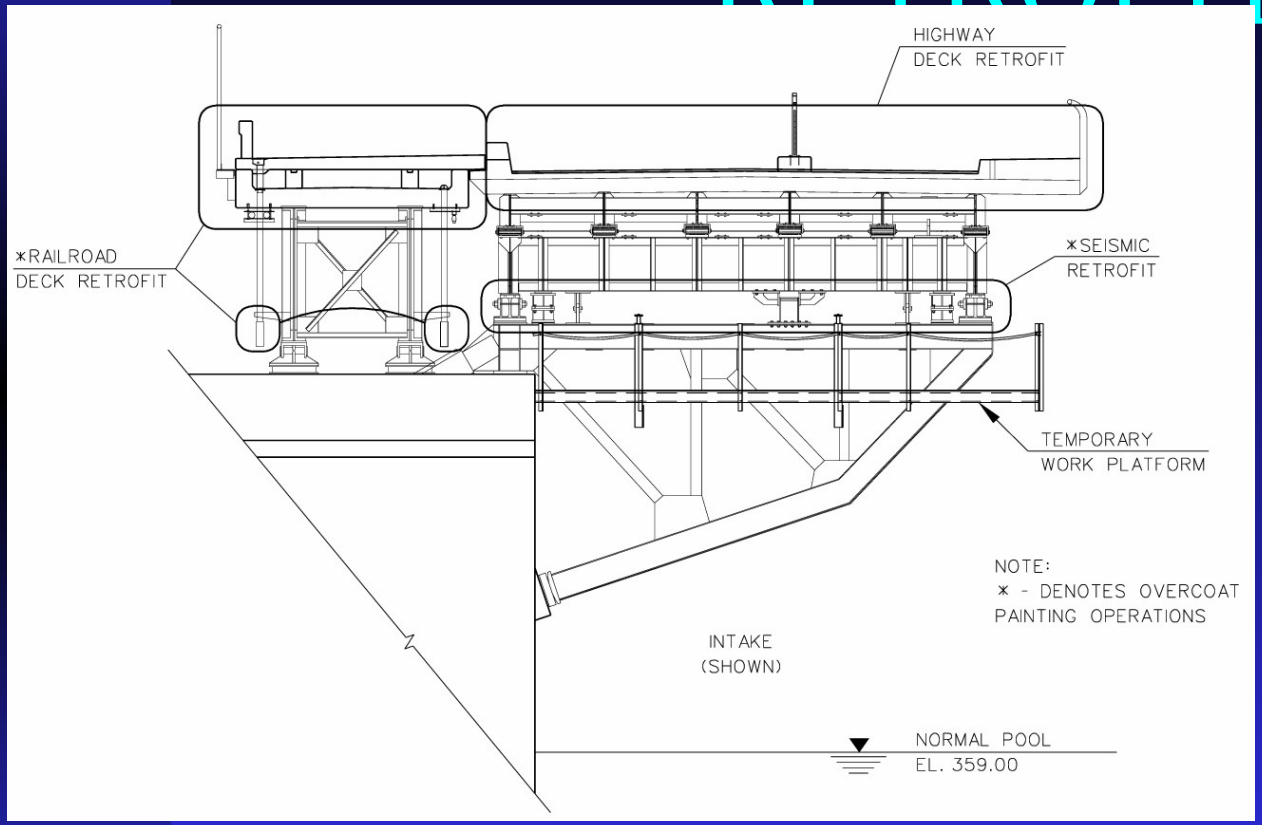

<u>Stage 2 Construction</u>:

- RR Deck & Drain Retrofit
- Hwy Curb/Exp Joint Reconstruction
- Asphalt Waterproofing Mix Overlay
- Hwy Sidewalk Overlay
- Seismic Retrofit
- Overcoat Painting

Stage 2 Construction

(Work Platform Access shown)

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SPILLWAY/INTAKE RETROFIT

STAGE 2 TIMING CONSTRAINTS

- Seismic Retrofit may be performed at any time.
- Hwy and RR deck retrofits may not begin until traffic is moved to new downstream bridges.
- P&L Railway forces will be removing existing ballast on RR deck.
- Overcoat Paint Operations shall not be performed until all retrofit operations are completed.

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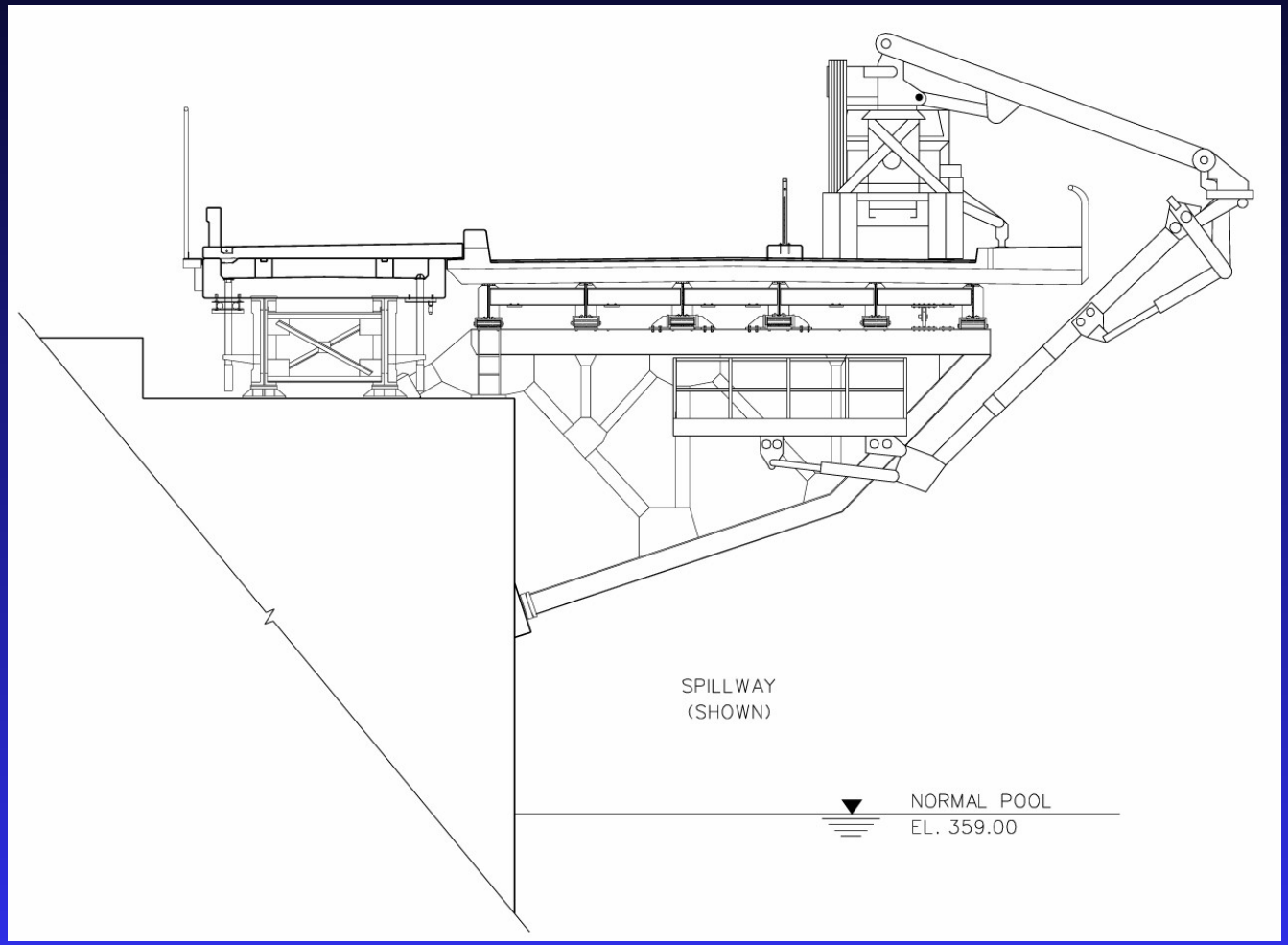
SPILLWAY/INTAKE RETROFIT



Snooper Platform Access Option

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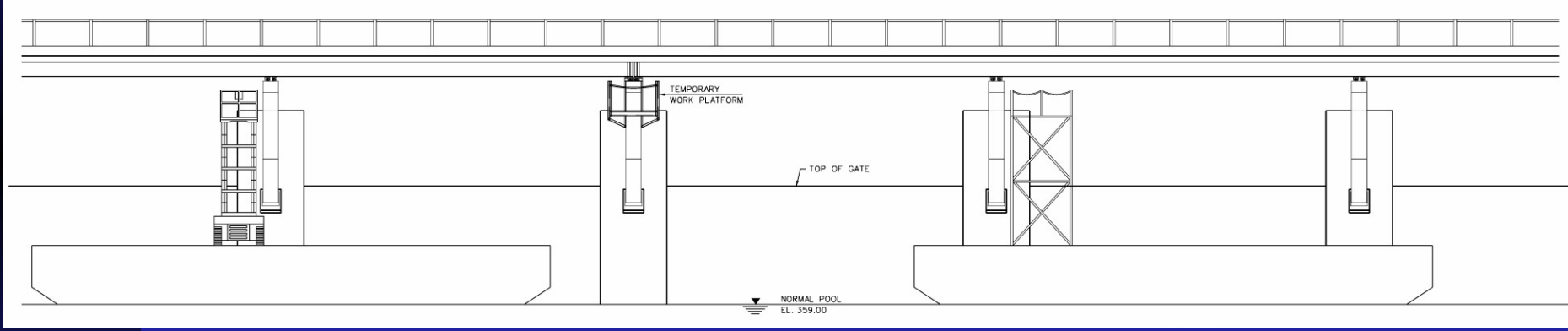
SPILLWAY/INTAKE RETROFIT



Lift Option

Platform Option

Lake Access Options

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SPILLWAY/INTAKE RETROFIT

ACCESS RESTRICTIONS

- Access to TVA operations area is restricted.
- Barge access not allowed during spilling operations.
- Worker access restricted over water during spilling operations unless both primary (100% tie-off) and secondary (safety net) fall arrest systems are used.

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SEISMIC RETROFIT

West Abutment

SEISMIC RETROFIT

Spillway Bracket

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SEISMIC RETROFIT

Expansion Roller Bracket

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Double Expansion Bracket

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SEISMIC RETROFIT

Fixed Bracket

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SEISMIC RETROFIT

Bracket 1

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SEISMIC RETROFIT

Intake Bracket

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SEISMIC RETROFIT

Top Chord Framing

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SEISMIC RETROFIT

Intake Expansion Bracket

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SEISMIC RETROFIT

Bracket E (Expansion / Fixed)

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SEISMIC RETROFIT

Rocker Bearing

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Intake Fixed Bracket

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SEISMIC RETROFIT

Concrete Bent A

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QUESTIONS ???

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